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## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to advisory action mailed on 03/25/2010, applicant filed a response on 05/05/2010. No claims were added, amended, or canceled. Claims 2 and 10 were previously canceled. The pending claims are 1, 3-9, and 11-13.

### ***Response to Arguments***

2. Applicant's arguments, see response, filed 05/05/2010, with respect to the rejected claims have been fully considered and are persuasive. The rejection of the pending claims on the ground of nonstatutory obviousness-type double patenting over the claims of US Patent 6,638,317 and US Patent 6,963,830 has been withdrawn. Accordingly, the pending claims are in condition for allowance.

### ***Terminal Disclaimer***

3. The terminal disclaimer filed on 05/05/2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patents 6,638,317 and 6,963,830 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Examiner's Amendment***

4. Authorization for this examiner's amendment was given in a telephone interview with Richard Golhofer (Reg. No. 31,106) on 05/24/2010.

### ***In the claims:***

Amend the following claims as indicated by the underlined text.

**Claim 1:** A document reading apparatus presenting a plurality of documents designated as reading documents by a user, comprising:

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information processor having a memory, including  
a thematic hierarchy recognizing device recognizing a thematic hierarchy of each of the plurality of documents:

by repeating a process for detecting a set of thematic boundaries in each layer of the thematic hierarchy, with each of a plurality of different window widths, wherein each of the thematic boundaries is detected based on a lexical cohesion score obtained from a similarity of vocabularies that appear in two adjacent windows with each of the window widths at each location in each of the plurality of documents, and

by correlating first and second thematic boundaries locating closely and detected with smaller and larger window widths, respectively;

a topic extracting device extracting a topic that commonly appears in the plurality of documents based on the thematic hierarchies recognized; and

a topic relation presenting device taking out a description part corresponding to the topic extracted from each of the plurality of documents and outputting the description parts taken out as related passages among said plurality of documents, wherein

regarding a topic set that comprises topics of various grading in the thematic hierarchies recognized, the topic extracting device calculates a relevance score between topics of the topic set based on lexical similarity of description parts corresponding to each topic of the topic set, and extracts a topic set having a relevance score equal to or more than a threshold that is set based on inclusive relationship of topics, and

the threshold, corresponding to any topic among topics which constitutes a target extraction of topic set, is a maximum value of calculated relevance score related to a topic which is included in a subtree in thematic hierarchies.

**Preamble of claim 9:** A non-transitory computer-readable storage medium encoded with a program for a computer that presents a plurality of documents designated as reading documents by a user, the program upon execution causing the computer to perform a method comprising:

**Claim 11:** A document presenting method of presenting a plurality of documents designated as reading documents by a user, comprising:

recognizing a thematic hierarchy of each of the plurality of documents:

by repeating a process for detecting a set of thematic boundaries in each layer of the thematic hierarchy, with each of a plurality of different window widths, wherein each of the thematic boundaries is detected based on a lexical cohesion score obtained from a similarity of vocabularies that appear in two adjacent windows with each of the window widths at each location in each of the plurality of documents, and by

correlating first and second thematic boundaries locating closely and detected with smaller and larger window widths, respectively;

extracting a topic that commonly appears in the plurality of documents based on the thematic hierarchies recognized; and

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taking out a description part corresponding to the topic extracted from each of the plurality documents and outputting the description parts taken out as related passages among said plurality of documents, wherein

regarding a topic set that comprises topics of various grading in the thematic hierarchies recognized, a relevance score between topics of the topic set based on lexical similarity of description parts corresponding to each topic of the topic set is calculated, by a processor, and a topic set having a relevance score equal to or more than a threshold that is set based on inclusive relationship of topics is extracted, and

the threshold, corresponding to any topic among topics which constitutes a target extraction of topic set, is a maximum value of calculated relevance score related to a topic which is included in a subtree in thematic hierarchies.

### *Allowable Subject Matter*

5. Claims 1, 3-9, and 11-13 are allowed.

The following is an examiner's statement of reasons for allowance: The pending claims are toward an apparatus, method, and computer-readable storage medium for recognizing a thematic hierarchy of each of a plurality of documents to be read and extracting topics that commonly appear in the plurality of documents to be read based on the recognized thematic hierarchy. The prior art of record, taken individually or in combination, do not teach or suggest recognizing a thematic hierarchy of each of a plurality of documents to be read and extracting topics that commonly appear in the plurality of documents to be read based on the recognized thematic hierarchy in a manner as described by the pending claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Abdelali Serrou/  
Examiner, Art Unit 2626

/David R Hudspeth/  
Supervisory Patent Examiner, Art Unit 2626

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